CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11244676	A2	19990914	JP 1998-45229	19980226

OTHER SOURCE(S): MARPAT 131:230524

AB The membranes are sintered articles from **sol** precursors formed by hydrolysis of Si alkoxides, org. Si compd. (RO)3SiCnHmSi(OR)3 (R = Me, Et, Pr, or Bu; n .gtoreq.1, m .gtoreq.2) having 2 Si atoms connected by a hydrocarbon group, and Zr alkoxides Zr(OR)4. The Si alkoxides is preferably HOSi(OR)3. The membranes are prepd. by mixing the Si alkoxide and the org. Si compd., to contain 0.05-0.5 equiv of the CnHm group for the total Si amt., in an alc. solvent, adding the Zr alkoxide to the soln. to a Zr/total Si mol ratio 0.1-0.5, hydrolyzing the mixt. to form a **sol**, applying the **sol** on a porous inorg support, drying, and firing at 350-600.degree.. The membranes are useful for sepg. gases.

L9 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:513303 CAPLUS
DOCUMENT NUMBER: 132:195861
TITLE: Alkoxysilane-modified polyurea coatings
AUTHOR(S): Ni, Hai; Skaja, Allen D.; Soucek, Mark D.; Simonsick, William J., Jr; Zhong, Wenqing
CORPORATE SOURCE: Polymers and Coatings Department, North Dakota State University, Fargo, ND, 58105, USA
SOURCE: Polym. Mater. Sci. Eng. (1999), 81, 405-406
CODEN: PMSEDG; ISSN: 0743-0515
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The first of three series of coatings were formulated using 1,6-hexamethylene diisocyanate (HDI) isocyanurate, i.e., Desmodur N-3300, and 3-aminopropyltriethoxysilane-functionalized HDI isocyanurate. The second series of coatings were formulated with the addn. of tetra-Et orthosilicate (TEOS) oligomers into the first series. In the third series, bis(triethoxysilyl)ethane (BTESE) was used instead of the TEOS oligomers. Both the TEOS oligomers and BTESE were investigated as corrosion inhibitors. All the formulations were crosslinked through a moisture-curing process. Crosshatch and pull-off adhesions were used to evaluate the effects of alkoxysilanes on adhesion. The adhesion of polyurea was dramatically increased by aminosilane-functionalized isocyanurate, and further improved with the addn. of TEOS oligomers. The incorporation of BTESE into the polyurea/alkoxysilane system did not modify the adhesion properties. Comparing the two **sol**-gel precursors, TEOS oligomers and BTESE, TEOS oligomers are more effective than BTESE for adhesion improvement.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:322965 CAPLUS
DOCUMENT NUMBER: 131:116616
TITLE: Cyclization Phenomena in the **Sol**-Gel Polymerization of .alpha.,.omega.-Bis(triethoxysilyl)alkanes and Incorporation of the Cyclic Structures into Network Silsesquioxane Polymers
AUTHOR(S): Loy, Douglas A.; Carpenter, Joseph P.; Alam, Todd M.; Shaltout, Raef; Dorhout, Peter K.; Greaves, John;